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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------------------|-----------------------------|
| 10/584,200 | 12/28/2006 | Toshiya Anami | 293003US0PCT | 9155 |
| 22850 | 7590 | 03/18/2009 | | |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER TAKEUCHI, YOSHITOSHI | |
| | | | ART UNIT 1793 | PAPER NUMBER |
| | | | NOTIFICATION DATE 03/18/2009 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--|-------------------------------------|--|
| Office Action Summary | Application No. 10/584,200 | Applicant(s) ANAMI ET AL. | |
| | Examiner YOSHITOSHI TAKEUCHI | Art Unit 1793 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6-23-2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it contains the legal phrase "Means for achieving objectives". Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1793

3. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims **1-2** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara et al (US 2003/0015573) with evidence from Kolek et al (US 7,267,158)

Kawahara teaches a method for manufacturing an aluminum alloy sheets (abstract) with the following composition (paragraph 0048):

| | Claim 1 and 2 composition | Reference | Overlap |
|--------------------|---------------------------|-----------|------------|
| Mg | 0.6 - 1.8 | 0.3 - 1.0 | 0.6-1.0 |
| Si | 0.6 - 1.2 | 0.3 - 1.5 | 0.6 - 1.2 |
| Cu | 0 - 0.3 | 0 - 1.0 | 0 - 0.3 |
| Fe | 1.2—2.0 | 0 - 1.2 | 1.2 |
| Al | Balance | Balance | Balance |
| According to need: | | | |
| Mn &/or | 0.6 - 1.8 | 0.1 - 0.7 | 0.6 - 0.7 |
| Cr | 0 - 0.15 | 0.1 - 0.3 | 0.1 - 0.15 |

Since the claimed composition ranges of the instant claim either overlap or are within the ranges disclosed by Kawahara, a prima facie case of obviousness exists. See MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to select the claimed aluminum alloy composition from the aluminum alloy composition disclosed by Kawahara because Kawahara teaches the same utility (i.e. a sheet metal with good corrosion resistance) in the whole disclosed range.

In Kawahara, the alloy is cast in a twin-roll continuous casting machine (paragraph 0037), where the temperature of the cast alloy coming out of the casting machine is 300°C or less (while Kawahara does not expressly teach the temperature at which the casting exits the casting machine, paragraph 0133 teaches the optional intermediate annealing is at 300°C, implying the temperature of the output is below 300°C), cold rolling is performed to the final sheet thickness by only cold rolling, without homogenization or hot rolling (Table 2, experiment 1), and solution treatment is done in an annealing furnace. Kawahara does not: teach casting in a twin belt casting machine, expressly teach the output of the casting machine being 250°C or less at the time of exit or within two minutes, nor solution treat in a continuous annealing machine.

Kolek teaches twin-roll continuous casting machines and twin belt casting machines are conventional casting machines used for similar purposes—to quickly solidify a liquid metal into a thin metal sheet (column 4, lines 50-55). As a result, it would have been obvious to a person of ordinary skill at the time of the invention to use a twin-belt casting machine in lieu of the twin-roll casting machine taught by Kawahara since Kolek suggests roller casting machines and belt casting machines are interchangeable conventional casting machines since either could be used equally well in the Kolek process.

Kawahara suggests the casting exiting the casting machine is at least 300°C or less (paragraph 0133). “Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456 (CCPA 1955). In this case, Kawahara does not specify the workable ranges for the temperature of the casting exiting the casting machine be 250°C immediately upon exit or within two minutes of exiting the machine, but it does describe the general conditions of the claim, namely casting exiting the casting machine is at least 300°C or less. It would not be inventive to discover the workable ranges by routine experimentation of the invention taught by Kawahara.

Kawahara teaches batch annealing and the optional practice of continuous intermediate annealing. As a result, it would have been obvious to a person of ordinary skill at the time of the invention to substitute continuous annealing instead of batch annealing to solution treat the casting since they essentially perform the same function, annealing, but one is an inline process and the other is not.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSHITOSHI TAKEUCHI whose telephone number is (571) 270-5828. The examiner can normally be reached on Monday-Thursday 9:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Dr. Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art Unit
1793

/YOSHITOSHI TAKEUCHI/
Examiner, Art Unit 1793